

Nutritionists Role in Economic Success in Difficult Times

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Overview

- Economic Shift
- Representative Dairy Implications
- Overall Implications



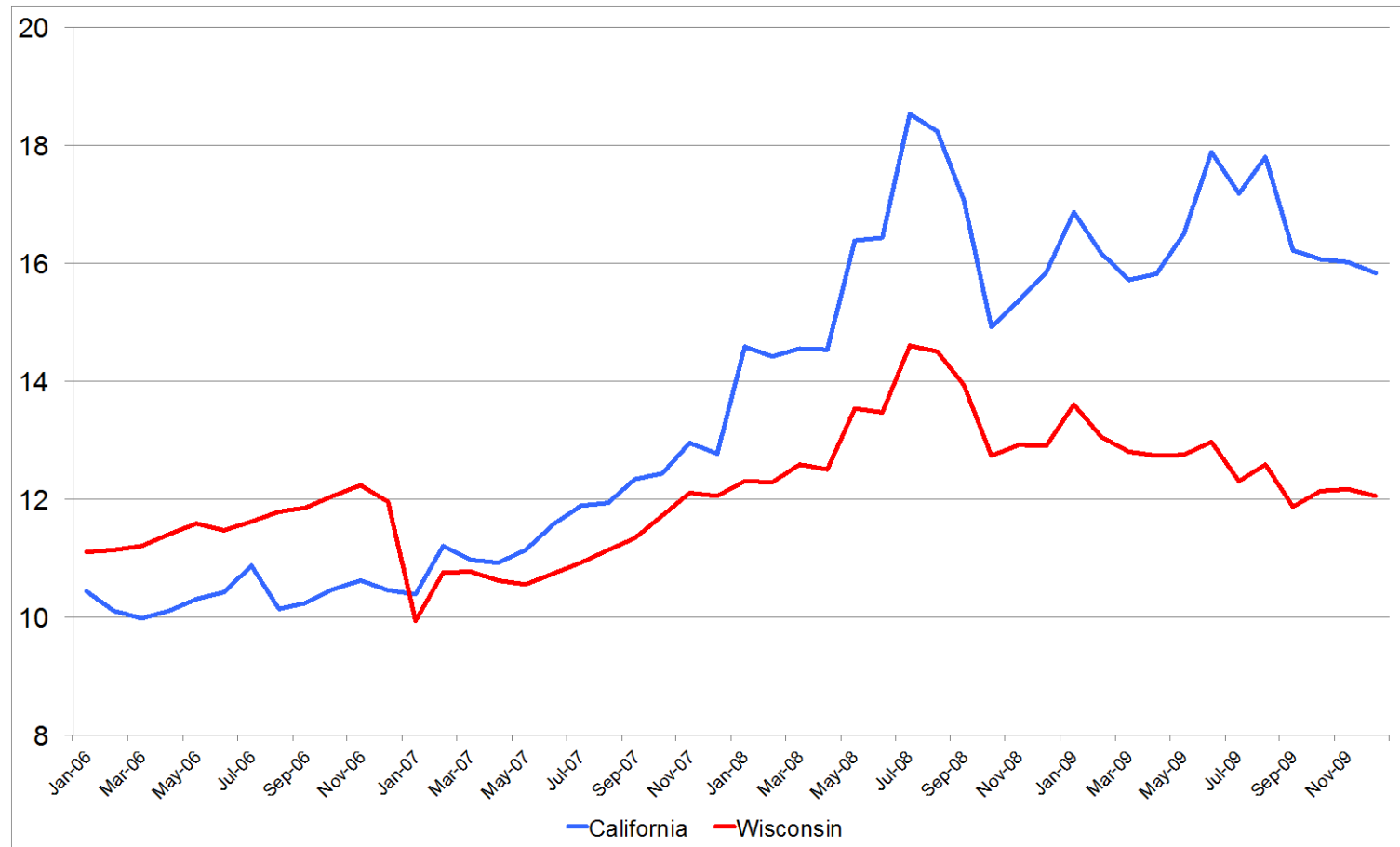
Nutritionists Role in Economic Success in Difficult Times?

- More Important Than Ever

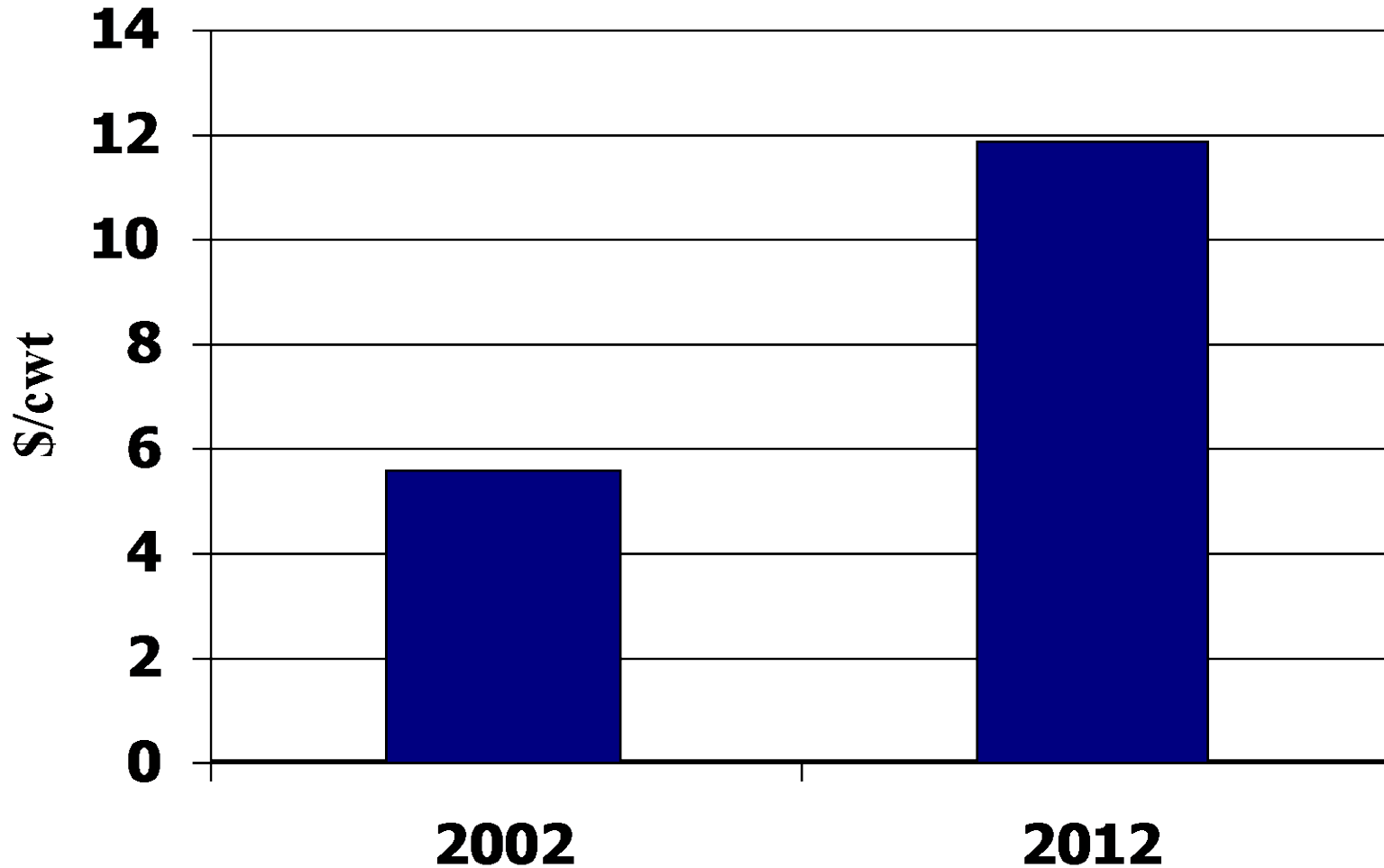
Economic Shift

- Today, It's Cheaper to Grow Feed Than to Buy
 - Huge change in economics of livestock production
 - Built industry on cheap feed
 - Can this revert back to the way it used to be?

Cost of Production Changes over Time



Increase in Purchased Feed Costs/cwt, NM

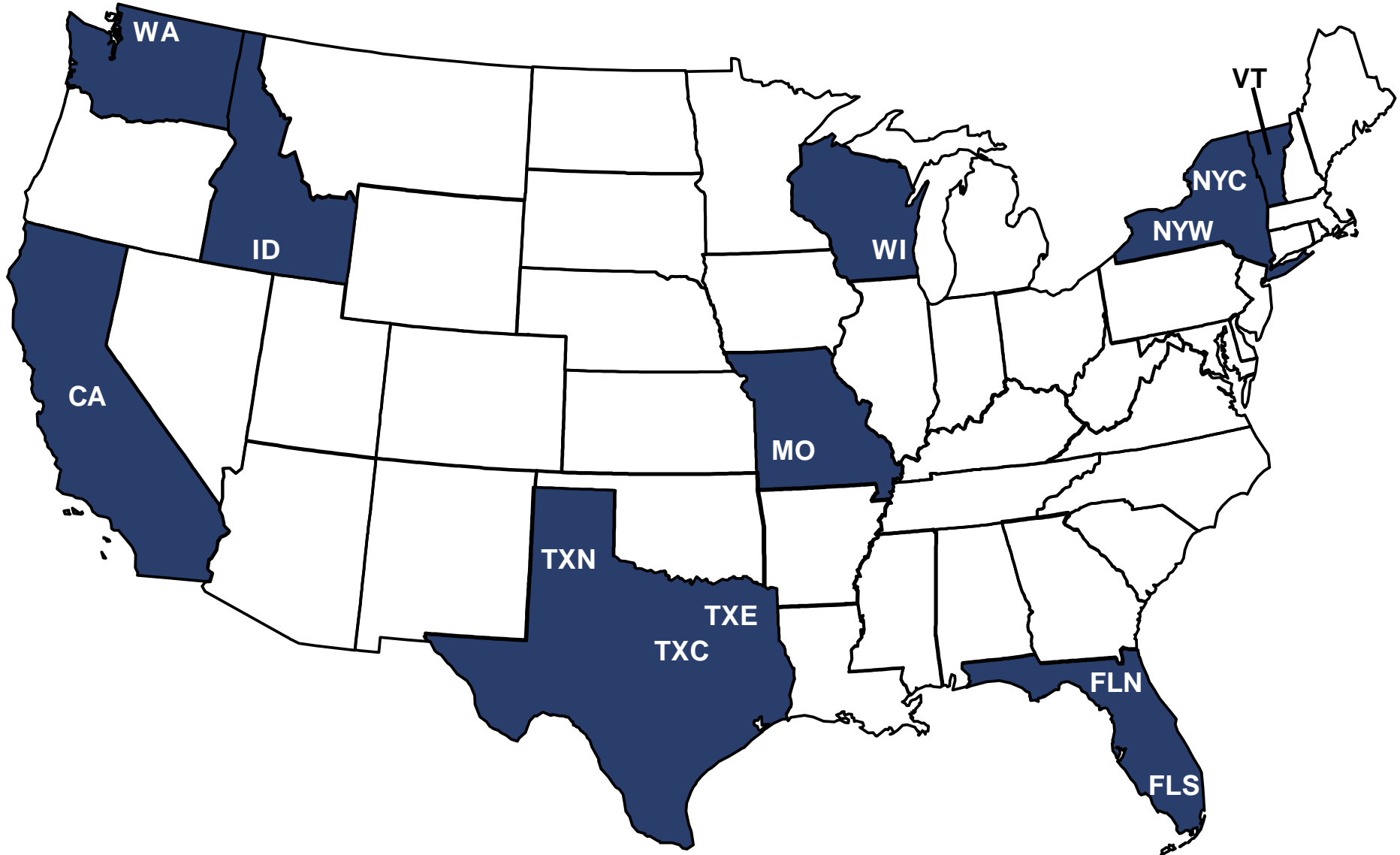


Economic Shift

- Economics of Structural Change
 - Large economies of size and scale
 - Used to be many small dairies
 - They aren't around anymore
 - Much tougher environment for everyone else

Representative Dairies

Location of AFPC Representative Dairies



Economic Viability of Representative Dairies, January 2013 Baseline

| Farm Name | Overall Ranking | | P(Negative Ending Cash) | P(Real Net Worth Declines) |
|-----------|-----------------|------|-------------------------|----------------------------|
| | 2013 | 2017 | 2013-2017 | 2013-2017 |
| 11/10/0 | | | | |
| CAD1710 | | | 99-71 | 1-1 |
| WAD250 | | | 92-23 | 1-1 |
| WAD850 | | | 94-24 | 1-1 |
| IDD3000 | | | 98-56 | 1-4 |
| NVD500 | | | 31-1 | 1-1 |
| TXND3000 | | | 99-74 | 1-21 |
| TXCD700 | | | 99-52 | 1-1 |
| TXCD1300 | | | 99-80 | 1-15 |
| TXED400 | | | 99-81 | 1-11 |
| WID145 | | | 1-1 | 1-1 |
| WID1000 | | | 93-23 | 1-1 |
| NYWD600 | | | 99-88 | 1-4 |
| NYWD1200 | | | 1-1 | 1-1 |
| NYCD110 | | | 1-1 | 1-1 |
| NYCD550 | | | 99-93 | 1-3 |
| VTD140 | | | 99-99 | 1-16 |
| VTD400 | | | 99-97 | 1-2 |
| MOGD550 | | | 1-1 | 1-1 |
| MOGD180 | | | 1-1 | 1-1 |
| FLND550 | | | 34-1 | 1-1 |
| FLSD1500 | | | 99-47 | 1-7 |

Feed Costs

- At Least 60 Percent of Costs
- Cost Variation, or Volatility:
 - Standard deviation more than 10% of feed costs
- Change in Feed Costs of ONLY 3 Percent or Less
 - Enough to turn Ending Cash Balance negative for 2013 on Texas representative dairies
 - Small change, large difference

Milk Production

- Smaller Changes in Milk Production
 - Enough to turn Ending Cash Balance negative
- More Efficient Feeds, More Effective Feeds
 - Significantly effect profitability

Implications

Implications

- Marginal Economics
 - Key in economics
 - Value of one more pound of milk versus the cost to produce it
- Maximizing Production Versus Maximizing Profit
 - Profit is more important
 - May be able to increase production, but not profitable to do so

Implications (cont.)

- Can We Affect Feed Value or Quality Through Production Practices?
 - Optimal Fertilizer?
 - Optimal Harvest?
 - Need better knowledge or input on production side?

Observations From Representative Dairies

- Over 25 Years of Analysis, A Few Observations
- Fewer Feeds in Ration
 - More consistency
 - Easier to manage
- Less Waste
 - Costs savings
- Regional Differences Remain in Rations
 - Wheat silage, sorghum silage, for example

Implications (cont.)

- Locking in, or Hedging, Feed Cost Considerations
 - Feed market outlook? Are prices likely to be higher or lower?
 - Can profitable feed be locked in?
 - Feed costs and milk price go together
 - Very careful – locking in milk price but not feed costs, or locking in feed price but not milk price

Labor

- M.S. Student Melissa Marsh's Research
- Study, Survey of Dairies on Labor and Immigration
- Labor Turnover and Production Efficiency
- Five Areas of Efficiency
 - Milk production
 - Calf Loss
 - Cow Death
 - Overall Herd Health
 - Feed Efficiency

Labor

- Labor Turnover Rate Found to Have Statistically Significant Effect on Each Efficiency Measure
- The Average Turnover Rate Cost the Total Industry Almost \$500 million (2008)
- Increased Turnover Rate:
 - Reduced Feed Efficiency
 - Reduced Milk Production
 - Reduced Overall Herd Health
 - Increased Death Loss

Implications (cont.)

- Creativity
 - One of the best tools for difficult times
- National Market for Feed
 - Price changes in one feed affect all the others, but still opportunities and time lags
 - For example: corn, ddgs
- Feed Market is Really Pricing Energy, Protein, Other Nutrients

Summary

- Feed Side of Production Has the Greatest Ability to Effect the Bottom Line
- Small Changes in Feed Costs = Big Changes in Bottom Line
 - Difference between profit and loss
- Small Changes in Feed Productivity = Bigger Changes in Bottom Line